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EXAMINER

REDDY, KARUNA P

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

12/31/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,916	Applicant(s) SARKAR, ASIM KUMAR	
	Examiner KARUNA P. REDDY	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-45 is/are rejected.
- 7) ☒ Claim(s) 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed 10/30/2009. Claims 1-24 are cancelled; and claims 25-45 are added. Accordingly, claims 25-45 are currently pending in the application.

This action is made final in light of limitations to the claims that are newly presented following the preceding office action.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Objections

3. Claim 32 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In the present instance, claim 31 includes salts of an azo-initiator while the dependent claim 32 includes, in the list, azo-initiators that are not salts.

Claim Rejections - 35 USC § 103

4. Claims 25-37, 39 and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over McVay (US 3, 784, 005) in view of data for water-soluble azo-initiators (Wako Specialty Chemicals), and Duffield et al (US 2003/0108705 A1).

McVay et al disclose a package containing materials to be added to a resin formulation and comprises a thin-walled plastic envelope (i.e. reads on a bag having sealable opening) which is soluble in the resin formulation (abstract). After materials are placed inside the lined rigid container, the flaps are sealed to form an enclosed film package. In cases, where compatibility of additives is obtained only when they are in dry state, care should be exercised to place dry additives in the envelope (column 7, lines 56-63). The envelope is filled in its own rigid shipping and storage container (col. 4, lines) which reads on outer containing of instant claims. After filling, protruding flaps of the film are sealed by any suitable means, such as tie cord (i.e. reads on tie-wrap of instant claims), twisting, folding (col. 6, lines 15-21) which reads on sealing member not causing physico-chemical changes to the water soluble polymeric material comprising the bag.

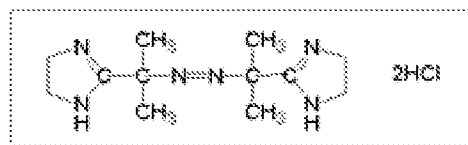
The additive is intended to embrace any material which is added to a resin formulation and includes catalysts (column 1, lines 24-30). The additive package comprises an envelope made of a thin film of synthetic organic polymeric material which is soluble in at least one component of the resin formulation into which the additive is to be introduced. The resin formulation contains one or more components in which the thin film of organic polymeric material will dissolve i.e. one or more solvent components. The term "solvent component" is used in some of the claims to mean the component of

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formulation which will dissolve the film (column 4, lines 18-30). McVay also contemplates an additive package which contains a plurality of additives. When the additive is reactive, it is temporarily coated to prevent interaction with the envelope. The temporary protective material should dissolve or otherwise dissipate when the additive package is admixed with the resin (col. 7, lines 31-43) which reads on water soluble diluent, when the reaction medium is an aqueous medium.

McVay is silent with respect to azo-initiator in dry powder form; water-soluble container/package; sealing member contains same water-soluble polymeric material as the container; sealing member comprising a tape; amount of water soluble azo-initiator;

However, data from Wako Specialty Chemicals shows that VA-044 (a commercially available water-soluble azo-initiator exists in the form of crystals or crystalline powder. VA-044 is represented by the formula below -



Therefore, in light of the data available for commercially available azo initiators, it would have been obvious to use the commercially available azo-initiators in crystal or crystalline powder form, because McVay et al generically discloses that the additives, in dry state, can include catalysts and azo polymerization initiators (i.e. catalysts) are available commercially in crystal or crystalline powder form (i.e. reads on dry powder form) and one of ordinary skill would have expected successful results for all catalysts, including commercially available azo initiators from Wako Specialty chemicals, absent evidence of unexpected results.

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With respect to the water-soluble container, Duffield et al teach water-soluble containers, for example, a poly(vinyl alcohol) and/or cellulose ether such as hydroxypropylmethylcellulose (paragraph 0011-0012) which reads on cellulosic polymeric and its derivative in instant claims 28 and 29. Therefore, in light of the teachings in Duffield, it would have been obvious to use a water-soluble container/package of Duffield et al, because McVay contemplates using a package/container that is soluble in the resin formulation of reaction system and a known water-soluble container would have been an obvious choice if the reaction is carried out in aqueous solution.

With respect to sealing member containing the same water-soluble polymeric material as the container, Duffield et al teach a container comprising a receptacle part and a closure part. The receptacle and closure part are made of water soluble polymer (paragraph 0013). Therefore, in light of the teachings in Duffield et al, it would have been obvious to one skilled in art at the time invention was made to use the sealable bag and sealing member of the same material for compatibility (i.e. reads on sealing member not causing physico-chemical changes to the water soluble polymeric material) because McVay discloses a sealable bag that is sealed, and Duffield et al teach that water soluble polymeric material can be used both as the sealable container and sealing member, and one of ordinary skill would expect it to work for the sealing bag of McVay, absent evidence to the contrary.

With respect to sealing member comprising a tape, McVay teaches that envelope can be sealed by any suitable means, such as tie cord, twisting, folding etc. (col. 6, lines 15-21). Given that McVay is open to sealing by any suitable means, it is the examiner's

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position that using sealing member in the form of tape is within the scope of one of ordinary skill in the art, absent evidence to the contrary.

With respect to the amount of initiator, while none of the references elucidate that value, it is the examiner's position that initiator amount is a result-effective variable (MPEP 2144.5) since the amount used clearly affects initiation of polymerization in the reaction medium of choice, including the aqueous medium of instant claims. Hence, the choice of a particular amount of initiator (such as the amount in present claims) is a matter of routine experimentation and would have been well within the skill level of one of ordinary skill in the art.

With respect to label on the outer container, it is the examiner's position that applying a label and specifying the determined amount of dry initiator powder and providing a certificate of analysis on the container, is within the scope of one skilled in the art and is determined by logistics and operational requirements of the supplier.

5. Claim 38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over McVay (US 3, 784, 005) in view of data for water-soluble azo-initiators (Wako Specialty Chemicals), and Duffield et al (US 2003/0108705 A1).

The discussion with respect to McVay, Wako Specialty Chemicals and Duffield et al in paragraph 4 above is incorporated here by reference.

McVay, Wako Specialty Chemicals and Duffield et al are silent with respect to anti-foaming agent.

However, Uchiyama teaches water-soluble antifoaming agent that can be used in the synthetic resin industry (abstract). Therefore, in light of the teachings in Uchiyama, it would have been obvious to one skilled in art at the time invention was made to add the

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water-soluble foaming agent, of Uchiyama et al, to the additive package of McVay, Wako Specialty Chemicals and Duffield et, if anti-foaming properties are desired during the polymerization process. Court held that selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

Response to Arguments

6. The rejections under 35 U.S.C. 112 Second paragraph, and 103 as set forth in paragraphs 4-9 in the preceding office action mailed 7/7/2009 are hereby overcome in light of the amendments and applicant's arguments filed 10/30/2009.
7. Applicant's arguments filed 10/30/2009 have been fully considered but they are not persuasive. Specifically, applicant argues that (A) McVay teaches a thin water insoluble container that must be kept in a separate durable container, while Duffield discloses a rigid water soluble container; (B) the translated article of Uchiyama provides no suggestion or motivation to incorporate an antifoaming agent with an azo-initiator contained in a water soluble bag; (C) examiner has failed to prove that Wako reference qualifies as citable prior art. Regardless, citation of the Wako data is misplaced. The applicant does not deny that azo-initiators in powder form exist in the prior art; and (D) previous failure of others, solution of long felt need, departing from the prior art's teachings, commercial success and a synergistic combination compel a finding of nonobviousness;

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With respect to (A), McVay is open to flexible containers (i.e. envelope) that are soluble in the reaction medium. Duffield is only used for its teaching that water soluble polymers can be molded into films and used as a container material. Given that McVay is open to flexible envelopes and the water soluble polymer of Duffield can be blow molded into a film, it is the examiner's position that it is within the scope of one skilled in the art to mold the water soluble polymer into a flexible sealing envelope.

With respect to (B), case law hold that selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

With respect to (C), Wako reference has a priority date of 1997 and is being provided with this office action, as well, for applicant's convenience. It is clear from applicant's own statement that azo initiators in powder form are known and thus qualifies as admitted prior art.

With respect to (D), applicant states that secondary considerations compel a finding of nonobviousness. Long-felt need is analyzed as of the date the problem is identified and articulated, and there is evidence of efforts to solve that problem, not as of the date of the most pertinent prior art references. *Texas Instruments Inc. v. Int 'l Trade Comm 'n*, 988 F.2d 1165, 1179, 26 USPQ2d 1018, 1029 (Fed. Cir. 1993). However, there is no showing that others of ordinary skill in the art were working on the problem and if so, for how long. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references, they would still be unable to solve the problem. Also, the failure to solve a long-felt need may be due to factors such as lack of interest or lack of appreciation of an invention's potential or marketability rather than want of technical know-how. See *Scully*

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Signal Co. v. Electronics Corp. of America, 570 F.2d 355, 196 USPQ 657 (1st. Cir. 1977). See MPEP § 716.04.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARUNA P. REDDY whose telephone number is (571)272-6566. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. P. R./
Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796